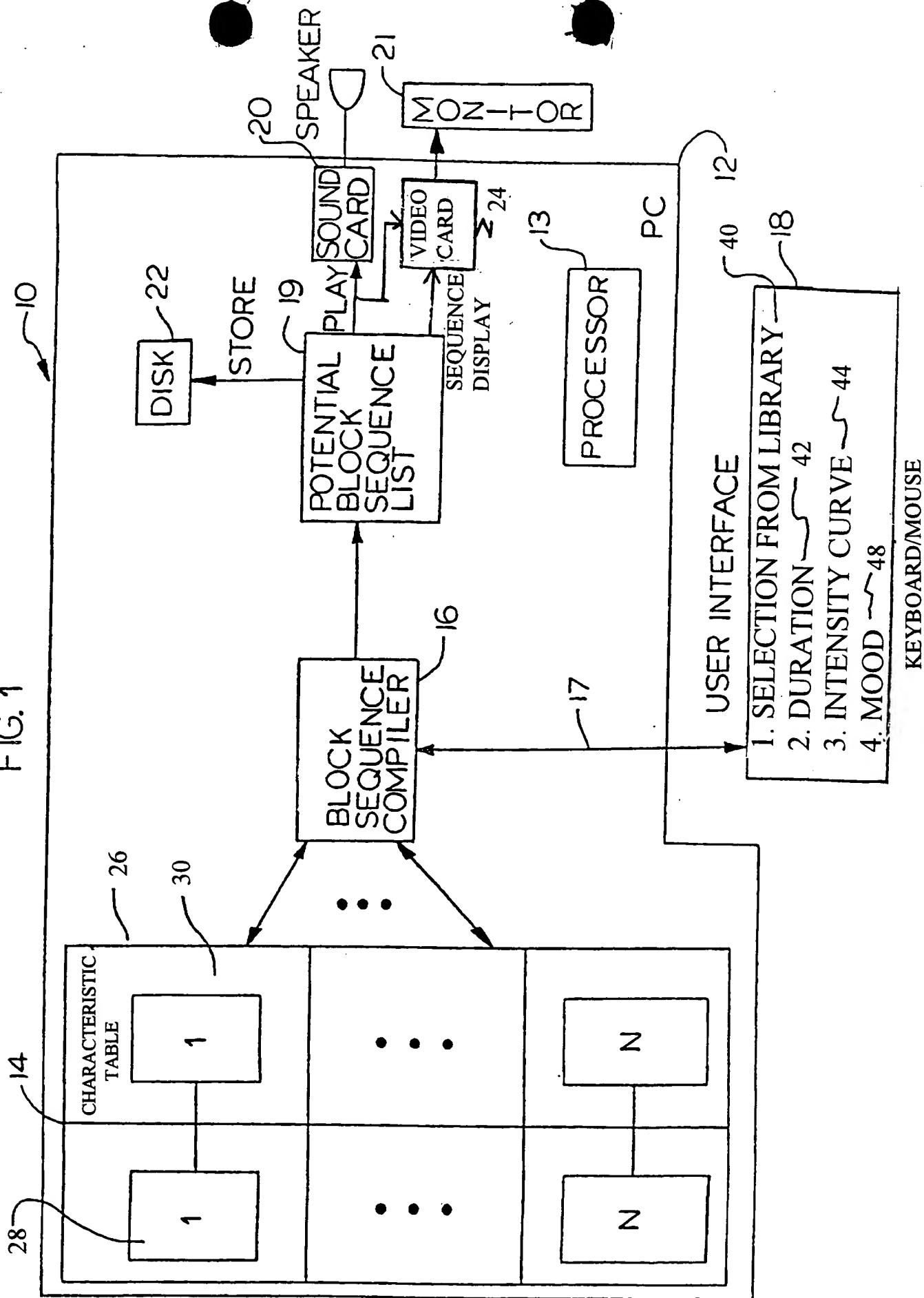


FIG. 1



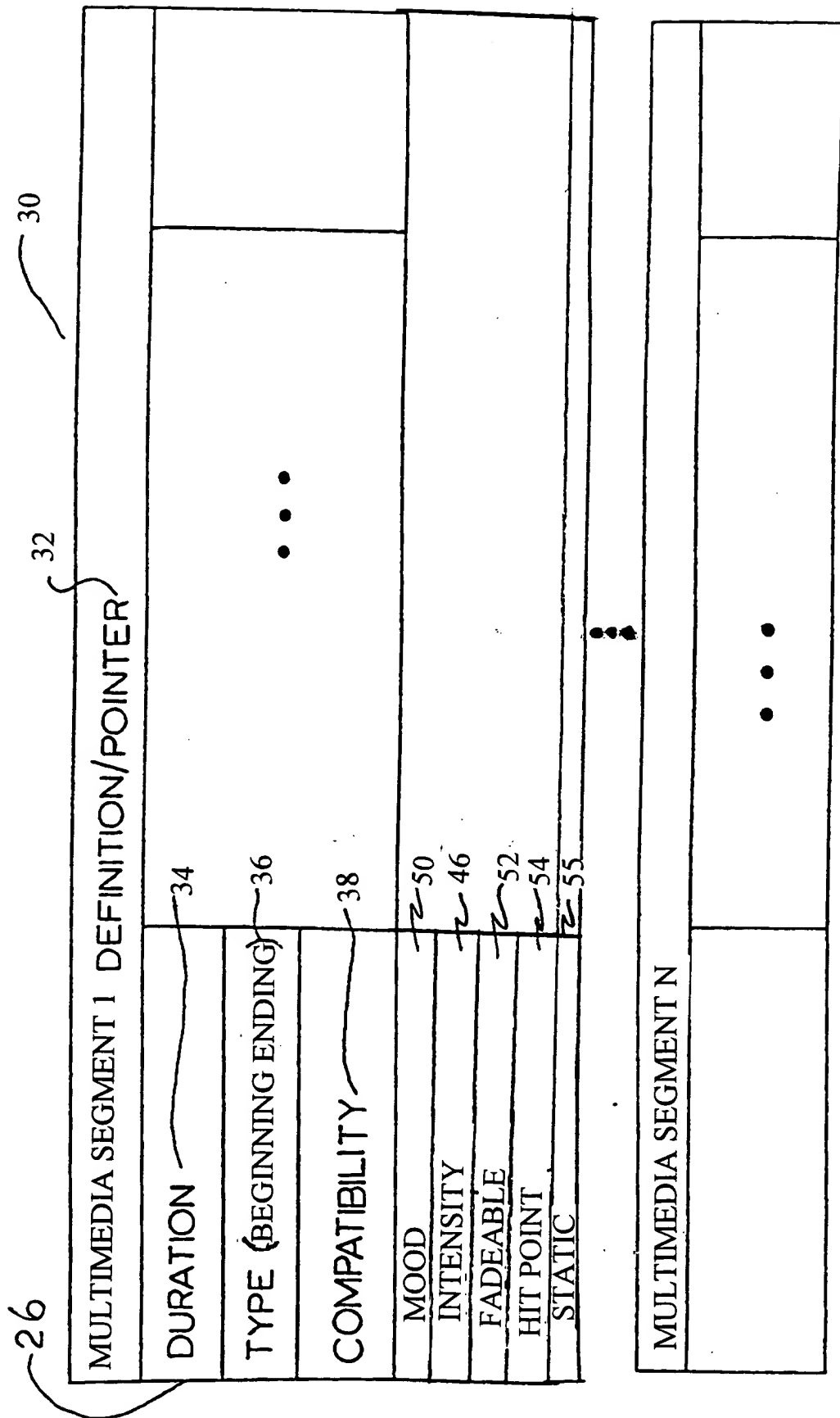
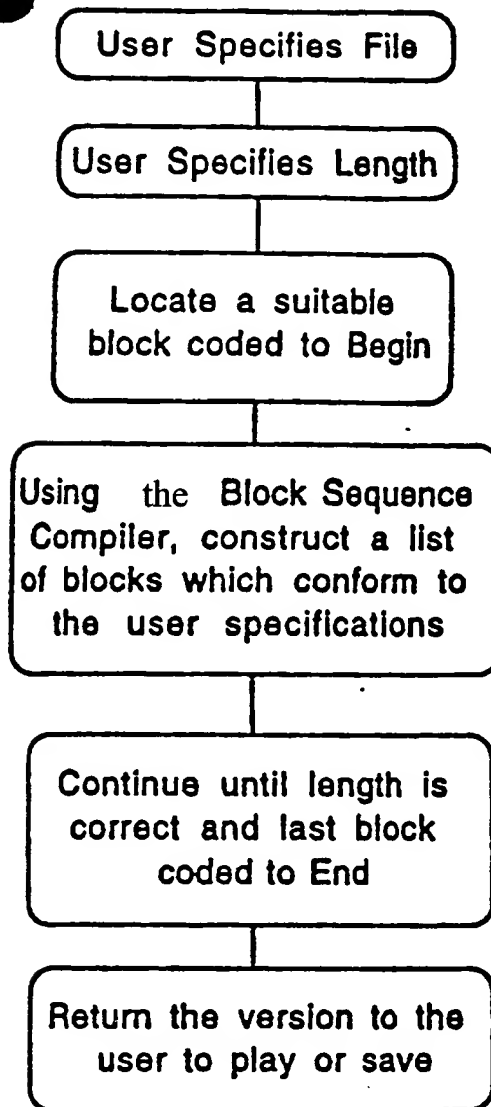


FIG. 2

## Block Diagram



**FIG. 3A**

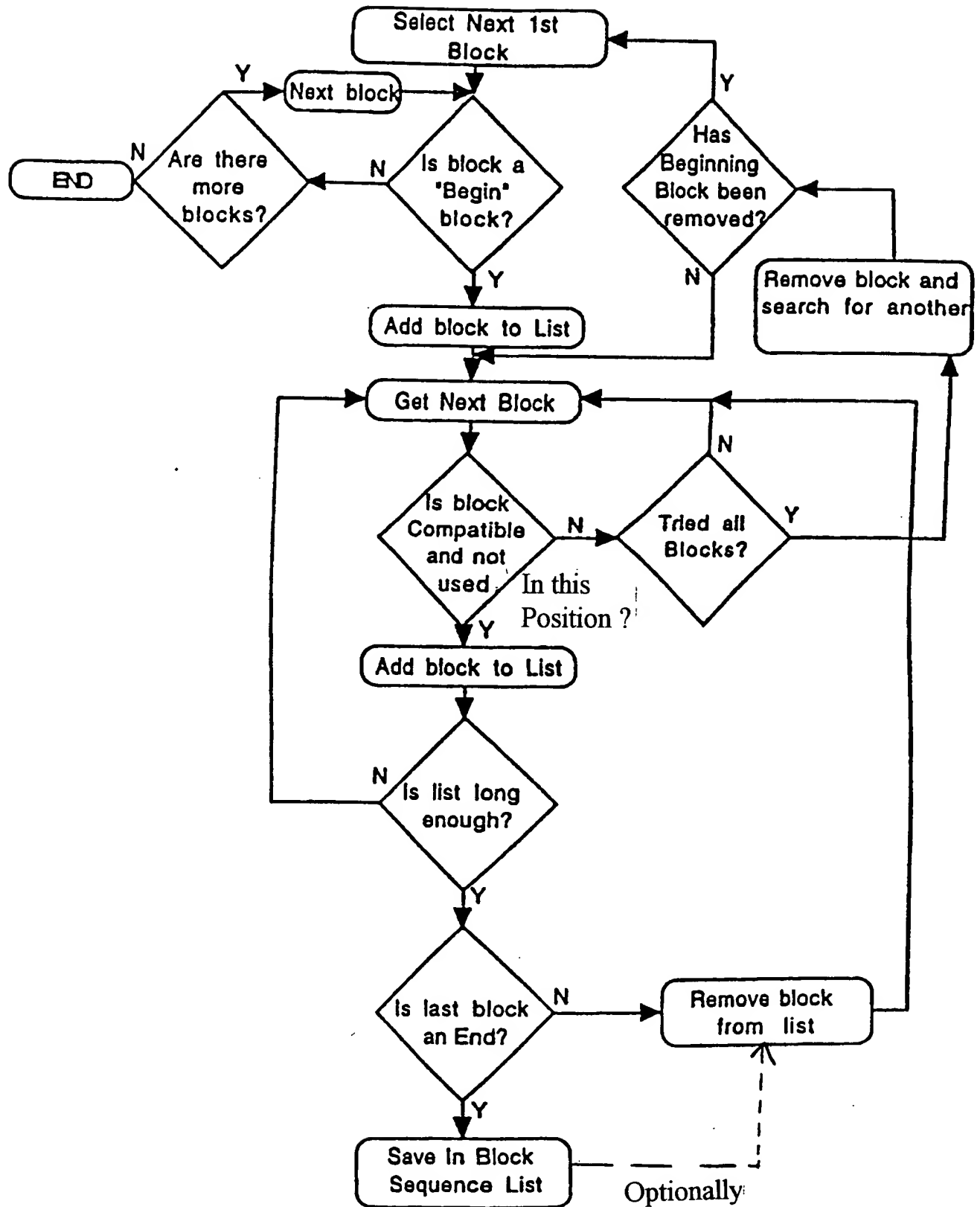


FIG. 3B

30

|                           | A | B | C | D | E | F   | G | H | I | J |
|---------------------------|---|---|---|---|---|-----|---|---|---|---|
| DURATION ~34              | 5 | 5 | 5 | 5 | 5 | 5   | 5 | 5 | 5 | 5 |
| BEGINNING/<br>ENDING ~36  | B |   | B |   | E |     |   |   |   | E |
| COMPATIBILITY<br>LIST ~38 | B | C | D | E | F | G H |   | E | I | J |

FIG. 4



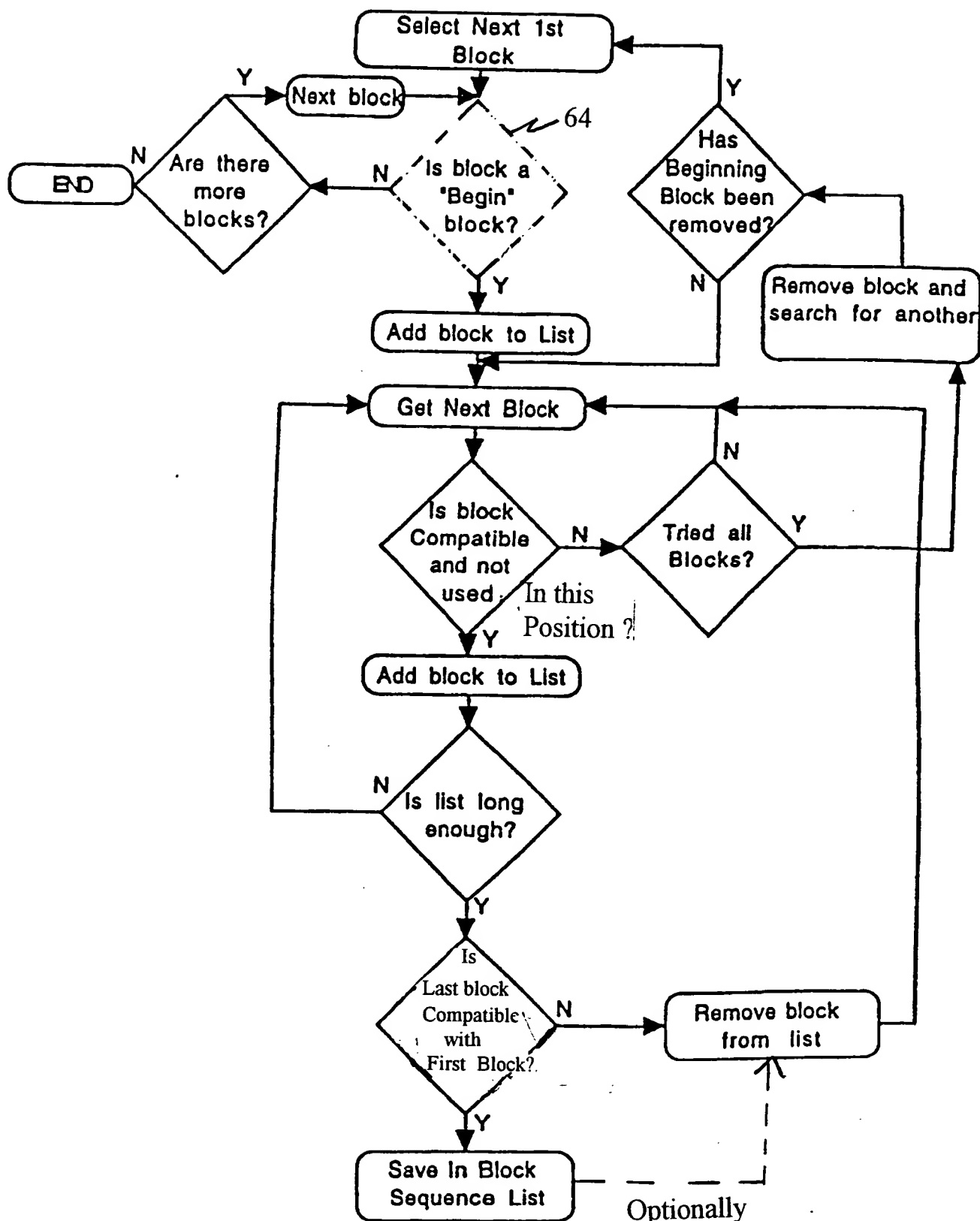


FIG. 6

Optionally  
Compile  
Next  
Sequence

|   |   |   |   |   |   |   |   |             |
|---|---|---|---|---|---|---|---|-------------|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |             |
| A |   |   |   |   |   |   |   | length = 5  |
| A | B |   |   |   |   |   |   | length = 10 |
| A | B | C | D | E | F | G |   | length = 30 |
| A | B | C | D | E | F | G | H | length = 35 |
| A | B | C | D | E | F | G | H | length = 35 |
| A | B | C | D | E | F | G |   | length = 30 |
| A | B | C | D | E | F | G | J | length = 35 |
| A | B | C | D | E | F | G |   | length = 30 |
| A | B | C | D | E | F | G |   | length = 30 |
| A | B | C | D | E | F | G |   | length = 25 |
| A | B | C | D | E | F | H |   | length = 30 |
| A | B | C | D | E | F | H | * | length = 30 |
| A | B | C | D | E | F | H | E | length = 35 |

A is the first block considered and it is a beginning so it is put in slot 1  
 B is considered next and it is checked for compatibility with A  
 \*  
 slots continue to be filled until...  
 the length is >= the desired length  
 H is checked for compatibility with the first block (A), it is not so it is removed  
 I is tried and not compatible with G, so J is tried next  
 \*\*\* J is compatible with G and the first block (A), so this sequence is returned \*\*  
 A SEQUENCE IS RETURNED  
 to continue looking for the next combination, J is removed  
 J is the last block so A is tried next...  
 blocks A - G are tried (H was the first one tried in this slot) and none are compatible  
 so G is removed from slot 6  
 H is compatible with F, so it is put in slot 6  
 I, J, A, B, C, D are all tried in slot 7 and either not compatible or not compatible with the first block (A)  
 \*\*\* E is both compatible with H and the first block (A), so this sequence is returned \*\*  
 \*  
 OR ALTERNATIVELY WITH STEP 44 BYPASSED...  
 \*  
 basic SEEDING is performed by putting another beginning block in the first slot (Note C is not a beginning block)  
 \*\*\* and building a sequence from there. \*\*  
 Note J is compatible with I and C is compatible to follow J

FIG. 7



30

|                            | A | B | C | D | E | F | G | H | I | J |
|----------------------------|---|---|---|---|---|---|---|---|---|---|
| DURATION ~ 34              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| BEGINNING/<br>ENDING ~ 36  | B |   |   |   | E |   |   |   |   |   |
| COMPATIBILITY<br>LIST ~ 38 | B | C | D | E | A | C | b | E | I | A |
|                            |   |   |   |   | F | G | H | J | J | C |

FIG. 8

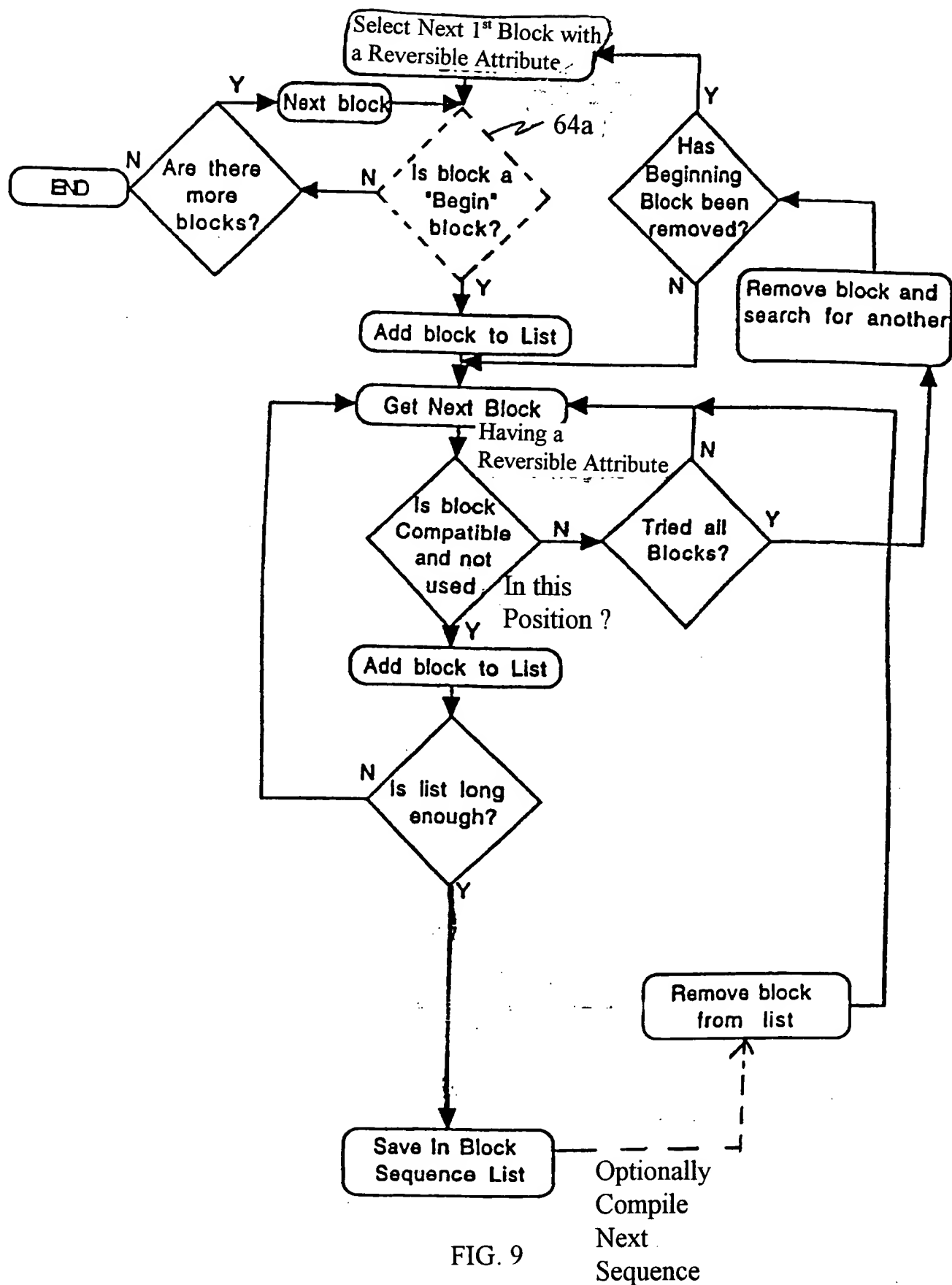


FIG. 9

30

|                            | A | B | C | D | E | F | G | H | I | J |
|----------------------------|---|---|---|---|---|---|---|---|---|---|
| DURATION ~ 34              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| BEGINNING/<br>ENDING ~ 36  | B |   | B |   | E |   |   |   |   | E |
| COMPATIBILITY<br>LIST ~ 38 | B | C |   | C | D | E |   | E |   |   |
|                            |   |   |   |   |   | F |   |   | I |   |
|                            |   |   |   |   |   | G | H |   | J |   |
| REVERSIBLE ~ 66            |   |   | X | X | X | X |   |   |   |   |

FIG. 10

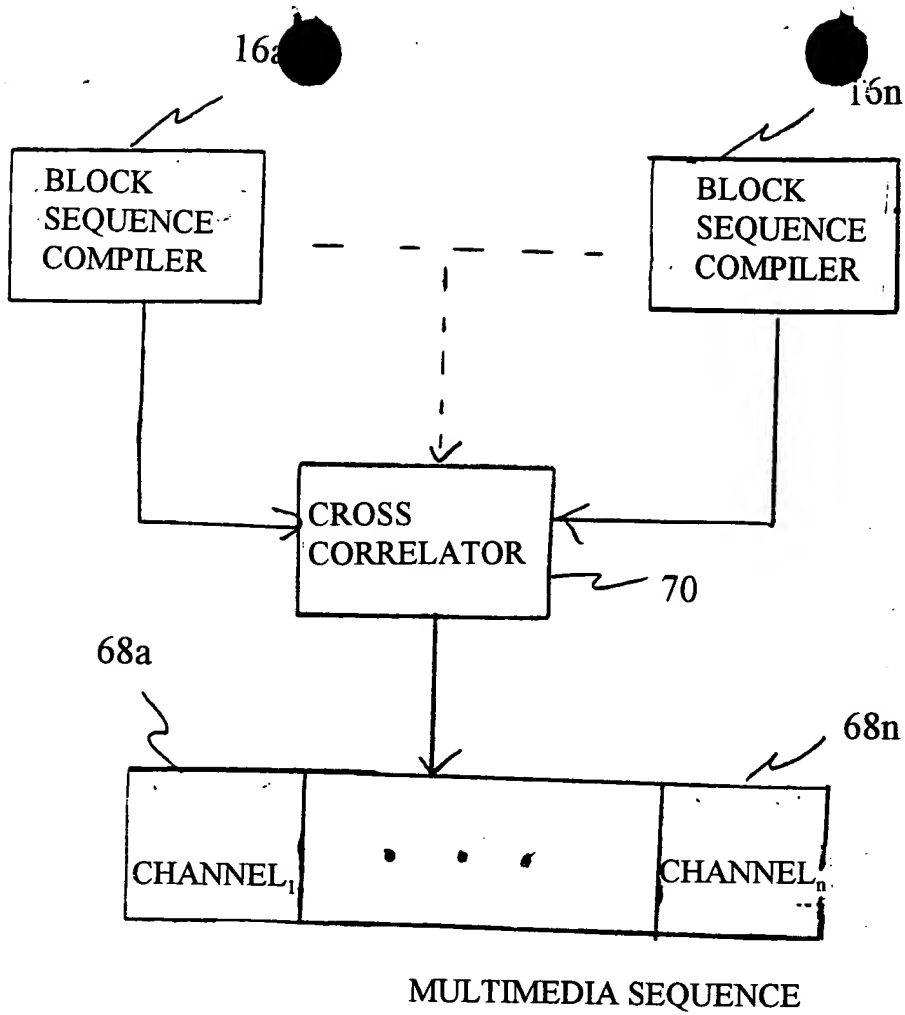


FIG. 11

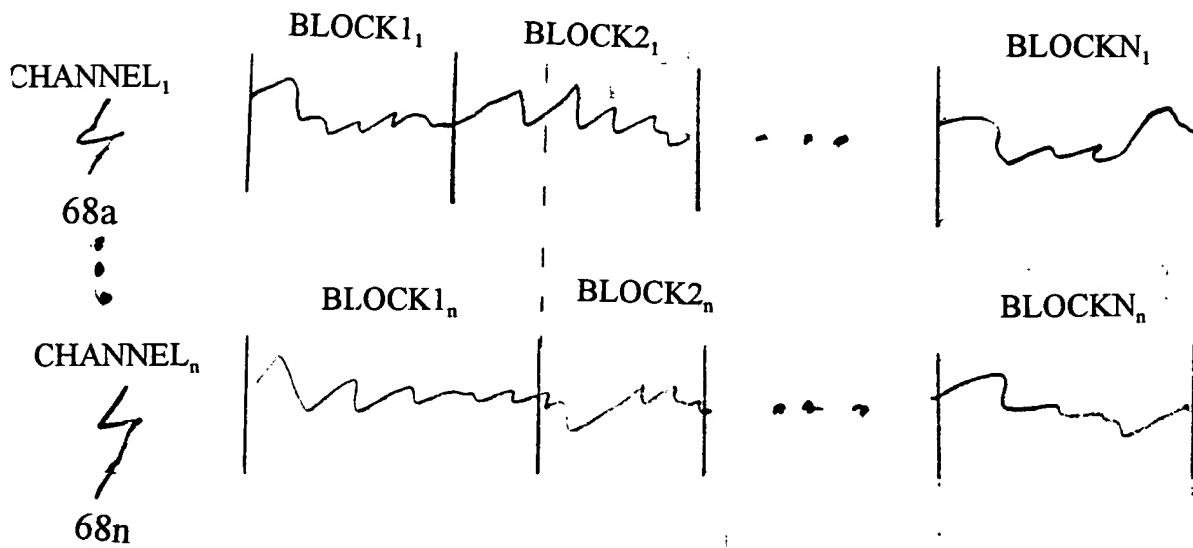


FIG. 12